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## REMARKS

The Examiner suggests that inherently a Bragg grating is segmented. As pointed out in the last response with accompanying proof, this is simply untrue. Nonetheless, the final rejection is maintained, suggesting, again, that it is well known that Bragg gratings are segmented. To the extent the Examiner relies on something that is well known, the Examiner should cite a reference. The applicant has already cited material which demonstrates this is untrue and, therefore, a substantial issue arises with respect to whether or not Bragg gratings are segmented. Particularly, Bragg gratings are written using UV light. Thus, there is no reason why they would be segmented because exposure to such light does not segment the waveguide.

Claim 3, for example, calls for one of the waveguides being segmented "by having at least two gaps along the length of the waveguide in the coupling region." The suggestion that nothing in the claims requires that gaps be empty of material is certainly surprising. One wonders what the Examiner believes a gap might be? There are no gaps or anything that could possibly be called a gap in the cited reference. There is simply a conventional Bragg grating with nothing added to it and nothing taken away from it. To suggest that this is segmented simply reads the word "segmented" out of the claim. Similarly, the suggestion that a gap could be simply an undifferentiated piece of material is to read a "gap" out of the claim. There is simply no basis for the maintenance of the rejection and reconsideration is respectfully requested.

The assertion that Snitzer describes a Bragg grating forming the segmented portions of the waveguides is certainly surprising since nothing in Snitzer ever mentions anything that is segmented. No support is ever provided for this assertion. In fact, no support is provided whatsoever that Snitzer is segmented. The assertion that the region 105 is segmented is unsupportable. It is simply a region which is written to by ultraviolet light. It is no way segmented any more than anything else in the waveguide. The assertion that "Snitzer describes a Bragg grating forming the segmented portions of waveguides" is without support. The assertion that "a Bragg grating inherently has at least two gaps formed therein" is completely unsupportable. In order to be inherent, it must necessarily be true. Since a Bragg grating is simply formed by exposure to ultraviolet light, there is no reason why a Bragg grating would be

segmented or would have one gap, much less two gaps. Moreover, no reason has ever been provided.

The assertion of well known gaps in Bragg gratings should be supported and should have been supported by now. Despite the fact that the applicant has shown that this is not the case the position has been maintained. Reconsideration should be undertaken.

Claim 4 calls for gaps that are irregularly sized. From the total absence of any teaching of a gap, the Examiner, nonetheless, rejects claims that call for specifically configured gaps. There is no basis for such a rejection.

Similarly, claim 5 calls for regularly sized along the length of the coupling region. Not only does the reference not show one gap, it does not show two gaps, and it tells nothing about any gaps whatsoever and, therefore, cannot teach the specific feature of the size of the gaps.

In sum, a rejection is based on a reference which teaches not one thing that is pertinent to the claimed invention. As a result, the rejection cannot be sustained and should be reconsidered to avoid an unnecessary appeal.

Respectfully submitted,

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